IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
CHEN et al.

Application No.: 10/563,078 Group Art Unit: 4173

Filing Date: June 8, 2006 Examiner: Nissa M. Westerberg

For: Matrix Adjuvants And The Drop Pills Prepared With Them

DECLARATION UNDER 37 C.F.R. § 1.132

I Chen Jianming, do hereby declare as follows:

1. My name is Chen Jianming. I received a bachelor's degree in pharmacology from the Second Military Medical University in 1987, an M.S. in pharmacology from ShenYang Pharmaceutical University in 1994 and a Ph.D from ShenYang Pharmaceutical University in 1999. I completed my post doctoral research at the Second Military Medical University in 2001.

2. I began my career at the Second Military Medical University, where I focused on the research and development of new drug formulation and new pharmaceutical technology. I authored numerous articles in scientific journals published in P. R. China and other countries.

3. I am the inventor of the subject matter of the above-identified patent application, application serial no. 10/563,078 (the '078 application).

4. It is my understanding that the Examiner has maintained the rejection of claims of the '078 application under 35 U.S.C. §102(b) as allegedly anticipated by Okada et al. (US 6,455,053) and by DuRoss (US 5,075,291); and under 35 U.S.C. §103(a) as allegedly obvious over Okada et al. and DuRoss.

5. The object of the '078 application is to provide a drop pill which is synthesized using natural materials rather than the synthetic matrix adjuvants, such polyethylene glycol, that were long used for making drop pills. Such synthetic matrix adjuvants in addition to being incompatible with many drugs lead to toxic and side effects. Thus, I set out to find, a method of preparing a drop pill using safe and nontoxic matrix adjuvants derived from plants. However, substitution of such synthetic matrix adjuvants proved to be difficult task since not all kinds of natural matrix adjuvants are suitable for making drop pill. That is, after changing the matrix adjuvant the drop pills were difficult to prepare. The problem was solved by using the matrix adjuvant listed in the claims and the method disclosed in the '078 application.

6. Neither Okada et al. nor DuRoss disclose a product that is a drop pill nor a method of making a drop pill. Okada et al. discloses a rapidly dissolving solid, prepared by dissolving a drug as well as a saccharide in an aqueous solution, followed by charging the mixture in a mold without the application of pressure and removing the moisture therefrom. DuRoss discloses a process of making pharmaceutical compositions which may be formed into tablet, wherein sugar alcohol is molten to form a crystalline sugar alcohol and then particles of the active ingredient are dispersed into the sugar alcohol.

7. As disclosed in my Declarations submitted to the United States Patent and Trademark Office on January 11, 2010 and June 14, 2010, comparative tests were performed wherein identical formulations were used to make the drop pill of the '078 application and the product of Okada et al. The only difference was the process used to prepare each product. That is, the product identified as "the drop pill of the '078 application was prepared according to Example 1 of the '078 application which provides that pellets of a molten mixture of the pharmaceutical active ingredient and the matrix adjuvant be dropped into a liquid coolant and the product identified as the "product disclosed by Okada et al., was prepared according to Example 12 of the Okada et al. which provides that a suspension of the pharmaceutical active ingredient and

saccharide be charged into a mold and air-dried, following by additional slow drying.

8. Also as disclosed my Declarations submitted to the United States Patent and Trademark Office on January 11, 2010 and June 14, 2010 comparative tests were performed wherein identical formulations were used using cimetidine as the active ingredient, sorbitol as the adjuvant and identical components to make the drop pill of the '078 application and the product of DuRoss. The only difference was the process used to prepare each product. That is, the product identified as "the drop pill of the '078 application was prepared according to Example 1 of the '078 application and the product identified as the "product of DuRoss" was prepared according to Example 5 of DuRoss. Example 1 of the '078 application provides that pellets of a molten mixture of the pharmaceutical active ingredient and the matrix adjuvant be dropped into a liquid coolant. Example 5 of DuRoss discloses placing a melt, consisting of the pharmaceutical active ingredient and a sugar alcohol, on a tray to dry and slowly cooling until crystallized. The crystallized product is then ground to provide a powder that can be make into tablets.

9. The data shows that the drop pill made by the process claimed in the '078 application is a different product from the product of Okada et al. The drop pill made by the process claimed in the '078 application unexpectedly has an average hardness that is higher, a significantly longer average disintegration time, a higher density and a smoother surface than the product of Okada et al. It is clear that the above differences in properties are derived from the different methods used.

10. The data shows that the drop pill made by the process claimed in the '078 application is a different product from the product of DuRoss. The drop pill made by the process claimed in the '078 application unexpectedly has a different crystalline state and different dissolution rates than the product of DuRoss.

11. Thus, based on the comparative tests submitted to the United States Patent and Trademark Office in my Declarations dated January 11, 2010 and June 14, 2010, it is

clear that the drop pill made by the process claimed in the '078 application is remarkably different from the product made according to the teaching of Okada et al. and the product made according to the teachings of DuRoss.

12. In addition, as shown by the numerous examples in the '078 application, the drop pill made by the process claimed in the '078 application exhibit the same unexpectedly properties when the matrix adjuvants listed in the claims are used. Thus, clearly the properties of the drop pill of the '078 application are derived from the selected matrix adjuvants and method claimed in the '078 application.

13. Further, it is my opinion that one skilled in the art would not expect the properties obtained by using the matrix adjuvant of claimed in the '078 application. Quite simply, it is my opinion, as one well skilled in the art, that the information available in the art at the time the '078 application was filed was not sufficient to create an expectation of success in obtaining the drop pill, having an average hardness that is higher, a significantly longer average disintegration time, a higher density and a smoother surface than the product of Okada et al a different crystalline state and different dissolution rates than the product of DuRoss.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under '1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent.

Date: September 10, 2010

Chen Jianming

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